

Work Order ID 149080

Tuesday, July 19, 2016 2:49:36 PM

149080

Page 1

Item ID: D4634-145

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft, Center Ceiling Replacement Panel Assembly

Start Date: 7/13/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/19/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

DAS

21

Date:

JUL 20 2016

Tooling:

Date:

QC:

9-89

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D4634

G

100

0.00

100

HandThermo

Memo

0.14

Hand Finishing Thermoforming

Pick Kit

110

0.00

110

Small Fab

Memo

0.22

Small Fab

Assemble as per Dwg D4634-145

1- Scuff bonding surface to eliminate in-perfections and increase bonding and clean with wash& wipe

2- Locate and glue down Channel Assy, angles, brackets, and mounting pads using 3M Plastic welder II.

Batch # m135436Expiry Date 03/11/2017

3- Apply labels as per Dwg. and seal with 3M 3950 edge sealer

AUG 12 2016

DAS
27
9-89
AUG 15 2016

PTO →

DQA: Ant Date: 09/12/2016QA Closed: RDN Date: AUG 26 2016

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>149080</u> Part No. <u>D4634-145</u> NCR No. <u>18-5994</u>		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☒</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☒	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Date: <u>16-03-22</u>		Step #: <u>110</u>		QTY Effective: <u>1</u>		MRB (QSI042) Approval <u>Ant</u> <u>AUG 22 2016</u>																																																																	
Description Work Order Deviation				Disposition		Completed By <u>27</u> <u>AUG 22 2016</u> Lead hand / Supervisor Approval Verification <u>DAS</u> <u>9</u> <u>16-03-22</u>																																																																	
WHILE INSTALLING MS20426 AD 3-6 RIVETS THE RIVET WOULD NOT INSTALL WITHOUT DAMAGING LEXAN MATERIAL CAR REQUIRED CAR 16153				REMOVE MS20426 AD 3-6 RIVETS AND INSTALL CCR 264 SS -3-03 RIVETS (4) M135127		QC / QA Coordinator Approval <u>DAS</u> <u>9</u> <u>16-03-22</u>																																																																	
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				☒ OTHER: <u>rivets.</u>																																																																			

Work Order ID 149080

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Page 2

Item ID: D4634-145 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Aft, Center Ceiling Replacement Panel Assembly
Start Date: 7/13/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/19/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									DAS
QC	Memo	0.00							9 9-89
Quality Control									
125	QC5- Inspect part completeness to step on W/O	0.00							
125									DAS
QC	Memo	0.00							9 9-89
Quality Control									
130	Identify as per dwg & Stock Location: _____	0.00							
130									DAS
Packaging	Memo	0.00							27 9-89
Packaging									

PPPI49123

AVG 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Work Order ID 149080

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149080

Page 3

Item ID: D4634-145**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** Aft, Center Ceiling Replacement Panel Assembly**Start Date:** 7/13/2016 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 7/19/2016 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:** _____**Date:** _____**Tooling:** _____**Date:** _____**Run Start*****NR1*****QC:** _____**Date:** _____**SPC (Y/N):** _____**Date:** _____**Stop*****NR2*****Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.02

**DAS
21
9-89****AUG 23 2016**

Quality Control

dm 16/08/23

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
JAC PS 10-6				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Page 1

Work Order ID: 149080

149080

Parent Item: D4634-145

D4634-145

Parent Item Name: Aft, Center Ceiling Replacement Panel Assembly

Start Date: 7/13/2016

Required Date: 7/19/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev. A 12/08/09 New Issue DL
 12/11/08 Document release DL VERIFIED BY:JLM IPP Rev C 13/07/09
 Dwg Update DL verf: DD IPP Rev D Dwg Update 13/12/23
 DL IPP REV E Dwg update 14/01/09
 DL IPP Rev F Dwg. update 14/02/03
 DL IPP Rev G Dwg. Update 15/01/27 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4636-5 *D4636-5* Bracket		Manufactured	No			100	Each	29.0000	1	1			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST115				29					
				129249				29					
D4712-1 *D4712-1* Bracket		Manufactured	No			100	Each	0.0000	1				
D5021-5 *D5021-5* Foam, Center Panel, Aft		Manufactured	No			100	Each	4.0000	1	1			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST479a				4					
				123923				4					
MS20426AD3-4 *MS20426AD3-4* RIVET		Purchased	No			100	Each	4,571.000	4	4			
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST312				4571					
				m134294				4571					

AUG 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Work Order ID: 149080

149080

Parent Item: D4634-145

D4634-145

Parent Item Name: Aft, Center Ceiling Replacement Panel Assembly

Start Date: 7/13/2016

Required Date: 7/19/2016

Start Qty: 1.00

Required Qty: 1.00

MS20426AD4-6

Purchased

No

100

Each

1,987.000

2

2

MS20426AD4-6

Rivet

**

PC

Location

Loc Qty

Loc Code

GA

276

M128812

16

M133234

260

ST311

1711

M134502

1711

MS21059L08

Purchased

No

100

Each

193.0000

2

2

MS21059L08

Nut

**

PC

Location

Loc Qty

Loc Code

ST300

193

m134634

93

m134943

100

D4634-5

Manufactured

No

100

Each

0.0000

1

1

D4634-5

Aft, Center Ceiling Panel

**

B149060

DAS
27
9-89

D4647-1

Manufactured

No

100

Each

12.0000

1

1

D4647-1

Doubler

**

PC

Location

Loc Qty

Loc Code

MF004

12

125018

4

129251

8

1

AUG 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition		Completed By	
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				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

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Work Order ID: 149080

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Parent Item: D4634-145

D4634-145

Parent Item Name: Aft, Center Ceiling Replacement Panel Assembly

Start Date: 7/13/2016

Required Date: 7/19/2016

Start Qty: 1.00

Required Qty: 1.00

D4664-5

Manufactured No

100

Each

27.0000

6

6

D4664-5

Spacer

**

B149159 SHD

Location

Loc Qty

Loc Code

MF004

27

129261

27

D4732-17

Manufactured No

100

Each

3.0000

1

D4732-17

Label

**

1 B149138 PC

Location

Loc Qty

Loc Code

MF005

3

123208

3

D4732-23

Manufactured No

100

Each

14.0000

1

1

D4732-23

Label

**

PC

Location

Loc Qty

Loc Code

MF005

14

120072

2

123211

12

D4732-27

Manufactured No

100

Each

14.0000

1

1

D4732-27

Label

**

PC

Location

Loc Qty

Loc Code

MF005

14

120074

2

123213

12

AUG 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Picklist Print

Page 4

Tuesday, July 19, 2016 2:49:40 PM

Work Order ID: 149080

149080

Parent Item: D4634-145

D4634-145

Parent Item Name: Aft, Center Ceiling Replacement Panel Assembly

Start Date: 7/13/2016

Required Date: 7/19/2016

Start Qty: 1.00

Required Qty: 1.00

MPNY-750S-9-C

Purchased

No

100

Each

851.0000

9

9

MPNY-750S-9-C

Mounting Pad

Location

Loc Qty

Loc Code

ST583

851

M130423

851

9

AUG 12 2016

DQA: _____ Date: _____

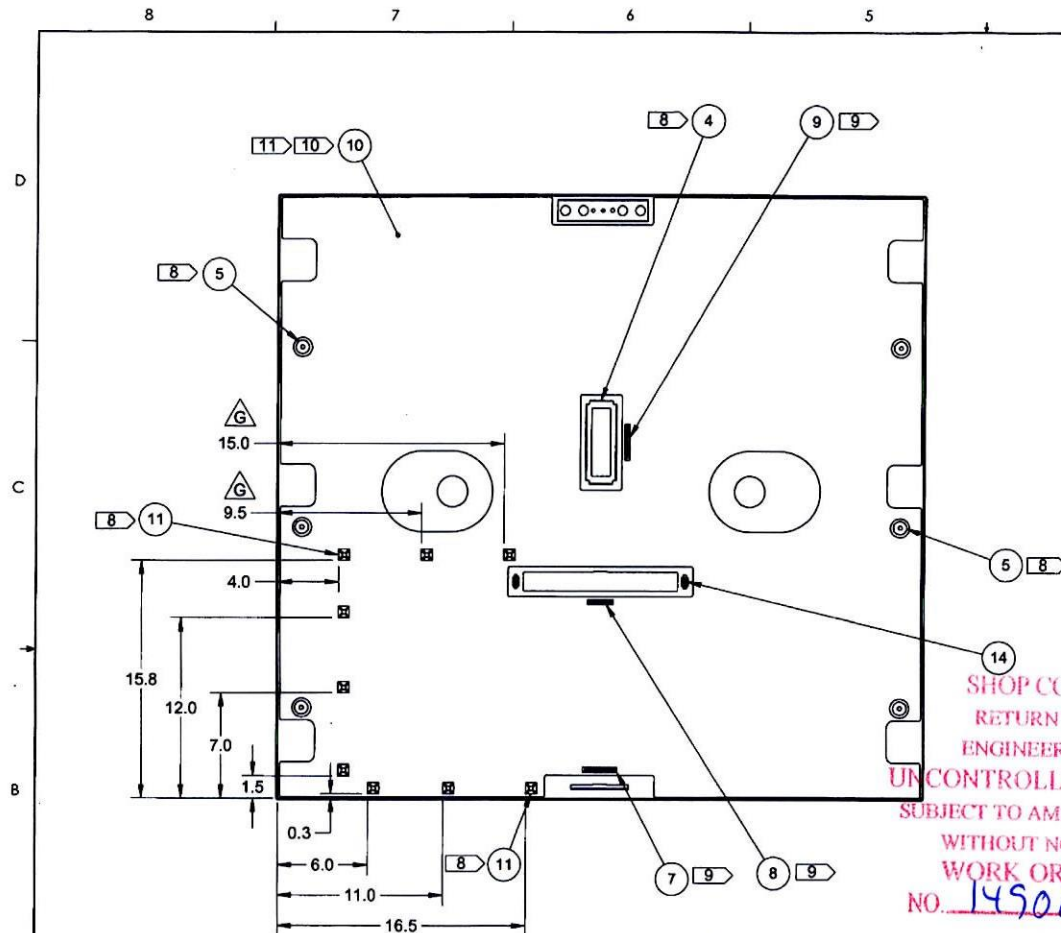


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

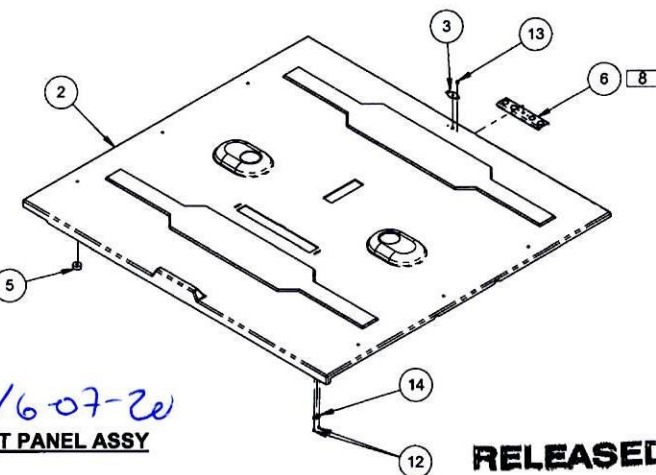
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
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OTHER : _____					



ITEM	QTY -145	P/N	DESCRIPTION
1	X	D4634-145	AFT, CENTER CEILING REPLACEMENT PANEL ASSY
2	1	D4634-5	AFT, CENTER CEILING PANEL
3	1	D4636-5	BRACKET
4	1	D4647-1	DOUBLER
5	6	D4664-5	SPACER
6	1	D4712-1	BRACKET
7	1	D4732-17	LABEL
8	1	D4732-23	LABEL
9	1	D4732-27	LABEL
10	1	D5021-5	FOAM, CENTER PANEL, AFT
11	9	MPNY-750S-9-C	MOUNTING PAD
12	4	MS20426AD3-(4)	RIVET, SOLID, CSK
13	2	MS20426AD4-(6)	RIVET, SOLID, CSK
14	2	MS21059L08	NUT PLATE

SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 149080 MLJ 1607-20

D4634-145 AFT, CENTER CEILING REPLACEMENT PANEL ASSY



RELEASED
2015 JAN 26

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) APPLY A BEAD (0.20 TO 0.30 WIDE) OF DEVCON PLASTIC WELDER II (0.25 INSIDE OF BOTH EDGES OF PART) TO BOND D4647-1 & MPNY-750S-9C. WAIT FOR 2 TO 4 HOURS FOR FUNCTIONAL CURE.
LOCATE D4647-1 IN LINE WITH RECTANGULAR OPENING
- 9) LOCATE LABELS AS SHOWN. SEAL LABELS USING 3950 EDGE SEALER OVER LABEL TOP SURFACE
- 10) APPLY AN EVEN COAT OF 3M SCOTCH WELD 1300L CONTACT ADHESIVE TO BOND D5021-5 FOAM CORE TO INSIDE OF PANEL
- 11) CENTER D5021-5 FOAM ON D4634-5

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	AK	DRAWING NO.	REV. G
MFG. APPR.	DL	D4634	SHEET 9 OF 17
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CENTER CEILING PANELS	NTS
DATE	14.11.28	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

Patrick Smith

From: Roberto Fuentes
Sent: Friday, August 19, 2016 10:04 AM
To: Patrick Smith
Cc: William Monterroza; David Bain; David Shepherd; Harvey Siemens
Subject: RE: D4634-141/-143/-145

Hi Pat,

It is acceptable the modification your suggested adding doublers and CCR264SS-3-03 as an alternate to the MS20426AD3-6 rivet for the product is on production to fix the issue.

Roberto

From: Patrick Smith
Sent: August-18-16 12:35 PM
To: Roberto Fuentes <rfuentes@dartaero.com>
Cc: William Monterroza <wmonterroza@dartaero.com>; David Bain <dbain@dartaero.com>; David Shepherd <dshepherd@dartaero.com>; Harvey Siemens <hsiemens@dartaero.com>
Subject: RE: D4634-141/-143/-145

Roberto,

At the same time David B. (quitter) was asked, so was I.

I saw the problems he was having and suggested to replace the rivets as a production tweek. I assessed the situation and suggested using an Anchor Nut Rivet (CCR264SS-3-03) when replacing the unacceptable rivet he showed me.

The installer took the initiative not to install the solid rivet in the remainder of the panels and complete the parts with CCR264SS-3-03 which turned out acceptable. (Picture 135324)

On the part which was brought to my concern there was superficial damage when he removed the rivet.

I assessed the situation and rather than scrap the panel I suggest we re-work the part to salvage it.

The fix would be to manufacture two small doublers (Picture:133104 and 133053) from 6061T6 0.020 Aluminum and dimple the top side, alodine, then sandwich the Lexan between the two doubles and bond in place, while attaching the Anchor Nut with CCR264SS-3-03.

I tried the light in place and it had no effect on the fit (picture: 133404 and 133410).

This can all be documented on the work orders as a NCR and a CAR would be generated to update the BOM to call out the CCR264SS-3-03 as an alternate to the MS20426AD3-6 rivet currently called out.

Let me know what you think,

Pat

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Sent: Thursday, August 18, 2016 12:11 PM
To: David Bain <dbain@dartaero.com>; David Shepherd <dshepherd@dartaero.com>; Harvey Siemens <hsiemens@dartaero.com>
Cc: William Monterroza <wmonterroza@dartaero.com>; Patrick Smith <psmith@dartaero.com>
Subject: RE: D4634-141/-143/-145

Hi David B.

I have review you request with Harvey, and we have questions of our own before to be agree.

- Is it for ease installation. Are we having issues with current ones?
- Have we tried on MS20426AA rivet?
- Would we rather go with "click bond"
- Have tried the "pop" rivets – do they crack the material at edge of the hole?
- What is the cost increase per panel using the "pop" rivet.

Roberto

From: David Bain
Sent: August-17-16 11:28 AM
To: David Shepherd <dshepherd@dartaero.com>; Roberto Fuentes <rfuentes@dartaero.com>
Cc: William Monterroza <wmonterroza@dartaero.com>; Patrick Smith <psmith@dartaero.com>
Subject: D4634-141/-143/-145

David, Roberto,

They are assembling D4634-14X Ceiling Panels on the floor. To mount the Light, we have two nutplates riveted to the ceiling panel using MS20426AD3-4 solid rivets (eg. Sheet 7, Item 10). They are installing these nutplates using a hand bucking tool and have asked if this could be changed to a countersunk POP rivet to simplify the assembly?

Chris suggests we pass this by you for approval before we agree to change anything.

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